

ABSTRACT

A portable device for detecting surface outgas contaminants of an article includes: (i) a portable housing that has a chamber which is in communication with a port that is adapted to be sealably attached to a surface of the article; (ii) a mass spectrometer that is coupled to the chamber for analyzing gaseous materials in the chamber; and (iii) means for generating a vacuum within the chamber thereby drawing outgas contaminants from the surface of the article into the chamber for analysis by the mass spectrometer. By performing a mass spectrometric analysis of the surface of interest and comparing the data with mass spectrometric data ascertained with the device from a clean surface, the type and amount of outgas contaminants, if any, can be determined.